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EXAMINER

RAO, ANAND SHASHIKANT

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed on 12/21/07 with respect to amended claims 1-17 have been fully considered but they are not persuasive.
2. The Applicant presents one argument contending the Examiner's pending rejection of previously presented claims 1-17 under 35 U.S.C. 102(b) as being anticipated by Yamazaki, as was set forth in the prior Office Action of 10/16/07, said argument being presented in support of the currently amended claims 1-17 now reciting a "...single gamma correction circuit..." limitation as the basis for patentability of the claims of instant invention. However, after a careful consideration of the argument presented, the Examiner must respectfully disagree for the reasons that follow, and maintain the applicability of the Yamazaki reference as the basis of the grounds of rejection that follows below.

After providing a summary of the applied reference (Amendment of 12/21/07: page 20, lines 8-18), and pointing out the "...single gamma correction circuit..." limitation of the amended claims (Amendment of 12/21/07: page 20, lines 19-20), the Applicant argues that the current scope of the claims distinguishes over the prior art (Amendment of 12/21/07: page 20, lines 21-24). The Examiner respectfully disagrees. The courts long established that the modification to make something integral that was once separate remains unpatentable as a matter of principle as it requires no special expertise on the part of one of ordinary skill in the art to effect such a change if so desired, *In re Larson*, 144 USPQ 347 (CCPA 1965), *In re Lockhart*, 90 USPQ 214 (CCPA 1951), and *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Accordingly, while

removing Yamazaki as an anticipatory reference, the Yamazaki teaching remains applicable as the basis of the grounds of rejection that follows below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki.

Yamazaki discloses a stereoscopic video image display apparatus (Yamazaki: figure 2; column 1, lines 10-25) including an image pick-up device for picking up the image of an object to be observed (Yamazaki: column 2, lines 45-55), a display device for displaying the video image which is picked up by said pick-up device and a stereoscopic video signal processing circuitry for processing (Yamazaki: column 3, lines 50-67) and converting the video signal output from said image pick-up device into a signal which can be displayed on said display device (Yamazaki: column 4, lines 25-35), characterized in that said image pick-up device comprises right and left-eye image pick-up elements which pick up right and left-eye video images, respectively, (Yamazaki: figure 2, element 3a and 3b); and in that said stereoscopic video signal processing circuitry comprises a video signal correction circuit including gamma correction circuits (Yamazaki: figures 1-3, elements 10a and 13a) which alternately corrects the right and left-eye video signals and a first switch for alternately switching the right and left-eye video signals (Yamazaki: figure 2, element S7) to said video signal correction circuit (Yamazaki:

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column 3, lines 9-47), as in claim 1. However, Yamazaki fails to disclose the use of a single gamma circuit as in the claims. However, the modification of making an element integral which was once separately constituted is a modification that has been long considered well within the purview of the one of ordinary skill in the art and therefore unpatentable by the courts, and as such, it would have been readily obvious to one of ordinary skill in the art at the time of the invention to combine the separate gamma correction circuits of Yamazaki into a single unit in order to reduce the power requirements of the circuitry, reduce circuit scale, and simplify synchronization of the switching process and arrive at the imaging apparatus as recited in claim 1, *In re Larson*, 144 USPQ 347 (CCPA 1965), *In re Lockhart*, 90 USPQ 214 (CCPA 1951), and *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). The Yamazaki, now operative upon a single gamma correction circuit, has all of the features of claim 1.

Regarding claim 2, Yamazaki discloses that said display device comprises a right and left-eye display elements for displaying the right and left-eye video images, respectively (Yamazaki: figure 2, elements 19 and 20); and in that said stereoscopic video signal processing circuitry comprises a second switch for separating said video signal output from said video signal correction circuit into right and left-eye video signals for supplying them to said right and left-eye display elements, respectively (Yamazaki: figure 2, element S8), as in the claim.

Regarding claims 3-4, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said first and second switches switch the right and left-eye video signals in accordance with dot synchronization timing, horizontal synchronization timing or vertical synchronization timing of the video signal (Yamazaki: column 7, lines 67-67; column 8, lines 1-20), as in the claims

Regarding claim 5, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said video image correction circuit comprises an amplifier having a variable gain or an attenuator having a variable attenuation (Yamazaki: column 3, lines 20-31), so that the difference between the levels of the right and left-eye video signals is corrected by adjusting said gain and attenuation depending upon the output level of said video signal correction circuit (Yamazaki: column 3, lines 40-50), as in the claim.

Regarding claim 6, the Yamazaki, now operative upon a single gamma correction circuit, discloses said video signal correction circuit includes a level shift circuit which is capable of shifting the direct current level of an input signal (Yamazaki: column 2, lines 60-67: luminance level is DC level in an image), so that the difference between the levels of the right and left-eye video signals is corrected by adjusting the direct current level of said input signal depending upon the direct current level of the output signal of said video signal correction circuit (Yamazaki: column 3, lines 19-30), as in the claim.

Regarding claim 7, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said video signal correction circuit corrects the difference between the right and left-eye video signals by correcting the pedestal levels of both video signals and/or video signal level (Yamazaki: column 3, lines 37-47), as in the claim.

Regarding claim 8, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said video signal correction circuit comprises a color correction circuit, which is capable of adjusting the tonality of the video signal to correct the difference between the tonality of the right and left-eye video signals (Yamazaki: column 3, lines 30-37), as in the claim.

Regarding claim 9, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said stereoscopic video signal processing circuit operates to cause said first switch to pass one of the right and left-eye video signals and operates to alternately switch said second switch (Yamazaki: column 5, lines 30-50; figure 2, elements S7 and S8), as in the claim.

Yamazaki discloses stereoscopic video signal processing circuitry for processing and converting right and left-eye video signals (Yamazaki: figure 2, elements 6, 17a, 17b; column 3, lines 45-68; column 4, lines 1-10) from right and left-eye image pick-up elements into a signal (Yamazaki: figure 2, elements 3a and 3b) which can be displayed on a display device for displaying a stereoscopic video image (Yamazaki: column 1, lines 10-20; figure 2, elements 19 and 20), characterized in that said stereoscopic video signal processing circuitry comprises a video signal correction circuit gamma correction circuits (Yamazaki: figures 1-3, elements 10a and 13a) which alternately corrects the right and left-eye video signals and a first switch for alternately switching the right and left-eye video signals (Yamazaki: figure 2, element S7) to said video signal correction circuit (Yamazaki: column 3, lines 9-47), as in claim 10. However, Yamazaki fails to disclose the use of a single gamma circuit as in the claims. However, the modification of making an element integral which was once separately constituted is a modification that has been long considered well within the purview of the one of ordinary skill in the art and therefore unpatentable by the courts, and as such, it would have been readily obvious to one of ordinary skill in the art at the time of the invention to combine the separate gamma correction circuits of Yamazaki into a single unit in order to reduce the power requirements of the circuitry, reduce circuit scale, and simplify synchronization of the switching process and arrive at the imaging apparatus as recited in claim 10, *In re Larson*, 144 USPQ 347 (CCPA

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1965), *In re Lockhart*, 90 USPQ 214 (CCPA 1951), and *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). The Yamazaki, now operative upon a single gamma correction circuit, has all of the features of claim 10.

Regarding claim 11, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said stereoscopic video signal processing circuitry comprises a second switch for separating said video signal output from said video signal correction circuit into right and left-eye video signals for supplying them to said right and left-eye display elements, respectively (Yamazaki: figure 2, element S8), as in the claim.

Regarding claim 12, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said stereoscopic video signal processing circuitry has said first and second switches switch the right and left-eye video signals in accordance with dot synchronization timing, horizontal synchronization timing or vertical synchronization timing of the video signal (Yamazaki: column 7, lines 65—67; column 8, lines 1-20), as in the claim.

Regarding claim 13, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said stereoscopic video signal processing circuitry is characterized in that said video image correction circuit comprises an amplifier having a variable gain or an attenuator having a variable attenuation (Yamazaki: column 3, lines 20-31), so that the difference between the levels of the right and left-eye video signals is corrected by adjusting said gain and attenuation depending upon the output level of said video signal correction circuit (Yamazaki: column 3, lines 40-50), as in the claim.

Regarding claims 14-15, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said stereoscopic video signal processing circuitry is characterized in that

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said video signal correction circuit includes a level shift circuit which is capable of shifting the direct current level of an input signal (Yamazaki: column 2, lines 60-67: luminance level is DC level in an image), so that the difference between the levels of the right and left-eye video signals is corrected by adjusting the direct current level of said input signal depending upon the direct current level of the output signal of said video signal correction circuit (Yamazaki: column 3, lines 19-30), as in the claim.

Regarding claim 16, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said stereoscopic video signal processing circuitry is characterized in that said video signal correction circuit comprises a color correction circuit, which is capable of adjusting the tonality of the video signal to correct the difference between the tonality of the right and left-eye video signals (Yamazaki: column 3, lines 30-37), as in the claim.

Regarding claim 17, the Yamazaki, now operative upon a single gamma correction circuit, discloses that said stereoscopic video signal processing circuitry is characterized in that said video signal correction circuit operates to cause said first switch to pass one of the right and left-eye video signals and operates to alternately switch said second switch (Yamazaki: column 5, lines 30-50; figure 2, elements S7 and S8), as in the claim.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner
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Asr
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Primary Examiner, Art Unit 2621
March 27, 2008